Ogallala Aquifer

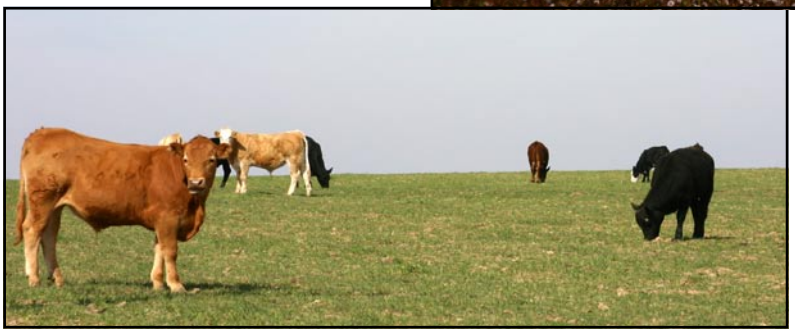
Funded by USDA ARS Research Initiative

Ogallala Initiative

story & photos by Shelby Axtell

The Ogallala Initiative is a project funded by the United States Department of Agriculture-Agricultural Research Service (USDA-ARS). The Initiative provides permanent funding for several research projects on water conservation for the Ogallala Aquifer through a consortium between USDA-ARS, Kansas State University, Texas A&M University, Texas Tech University, and West Texas A&M University.

With the continued depletion of the Ogallala Aquifer, the Initiative's focus is to improve the sustainability of agricultural industries and rural communities through innovative scientific research. Research focus areas include 1) irrigation systems and technologies, 2) irrigation and precipitation management, 3) production systems (integrated crop/livestock systems), 4) hydrology and climatology, 5) technology transfer (training and education), 6) CAFO (concentrated animal feeding operations) and processing industry water issues, and 7) economic assessments and impacts (micro & macro). The project is to consider socioeconomic impacts and an assessment of all available water resources, providing scientifically sound information for public policy decisions.



The Ogallala Aquifer, which has long been the main water supply for the High Plains' population, is being depleted at an unsustainable rate. It is an underground water reservoir, created more than a million years ago through geologic action and covers about 174,000 square miles; mainly in Nebraska, Kansas, Oklahoma, and Texas (also known as the High Plains). The aquifer also covers part of South Dakota, Wyoming, Colorado, and New Mexico.

This reservoir is a major source of water for agricultural, municipal and industrial development. Use of the aquifer started around the turn of the century. With the Dust Bowl in the 1930s advancements in irrigation, and the occurrence of dry climates resulting in repeated droughts, the use of the aquifer has surpassed its ability to naturally recharge.

Faculty, researchers, and specialists from Kansas State University, Texas A&M University, Texas Tech University, USDA-ARS, and West Texas A&M University have joined together in an effort to instigate means to preserve the aquifer and enhance the rural economies based on irrigated agriculture to transition to lower water requiring crops or livestock based forage systems or improved dryland crop production systems.

The Ogallala Aquifer Project web site (http://ogallala.tamu.edu) will be the database for information pertaining to several audiences affected by the aquifer. This web site will be updated regularly with new information and ways to help preserve this invaluable water resource, as well as current research being conducted by the research consortium partners.

The Ogallala Initiative's goal is to sustain rural economies through new water management technologies.✦

OGALLALA INITIATIVE GOAL

Sustaining rural economies through new water management technologies.